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EXECUTIVE SECRETARY

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Federal Communications Commission
Office of Secretary

Nancy E. Lubamersky
Executive Director
Regulatory Planning
U S WEST
11 Upper Ardmore Road
Livermore, CA 94539

Dear Ms. Lubamersky:

During the course of the last several weeks, members of the Common Carrier Bureau's Policy and Program Planning Division ("Division") have met with representatives from U S WEST to discuss third-party testing of operations support systems ("OSS") and the competitive local exchange carriers ("CLECs") access to those systems. The Commission has previously indicated that for a Bell Operating Company ("BOC") to obtain approval under section 271 of the Telecommunications Act of 1996 to provide in-region, interLATA services, it must demonstrate that it provides to CLECs nondiscriminatory access to its OSS and that its systems are operationally ready and capable of handling reasonably foreseeable demand. A number of companies, including yours, have undertaken or are developing independent third party tests of their OSS.

The purpose of the discussions between Division staff and interested parties has been to provide guidance on important elements that a third-party test should include to assist our determination that a BOC is providing nondiscriminatory access to its OSS. These views represent the current thinking of the Common Carrier Bureau and are in no way binding on the Commission. Any final determination concerning whether a BOC is providing nondiscriminatory access to its OSS will be made based upon the record in a section 271 application. It is my hope, however, that the Bureau's views on these issues will be helpful to you and other Bell Operating Companies in formulating successful section 271 applications.

1. Performance Measure Evaluation

A thorough and well-documented independent assessment of the data collection and calculation processes for performance data will considerably facilitate the Commission's review of a section 271 application. An independent review of the performance measurements is crucial in determining the accuracy and validity of performance data. In particular, the staff believes that such an independent review would include the following qualitative and quantitative aspects.

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- An evaluation would include an assessment of whether the raw data being collected by the BOC is accurate, which could be tested by observing the raw data collection processes and by comparing the BOC's raw data to independently-collected data.
- The evaluation would assess the processes by which the raw data is filtered and transformed into final, reported results.
- The evaluator would assess whether the BOC's data collection and data processing functions are consistent with the published performance measurement business rules.
- The evaluator would assess the adequacy and functioning of the BOC's internal controls over the data collection processes and the software programs that process the data (such as the controls over personnel access to the databases, and the controls that ensure that the programs and program modifications are properly authorized, documented, tested and approved).
- The evaluation would include an independent quantitative verification of the reported performance data. To accomplish this, the evaluator could be provided with the BOC's raw data and independently process the data, pursuant to the business rules, to ensure that the stated calculations and algorithms have been accurately applied.

We note that a comprehensive evaluation of the BOC's performance measure processes may include elements in addition to those listed above, as determined by the states or by an independent evaluator. Accordingly, we encourage BOCs to make the details of the proposed evaluation available to the Commission, and to the public, as they are developed.

2. Change Management Test

We also believe it critical that there be an independent review of a BOC's change management process and procedures as well as its implementation of these procedures.¹ The change management test should provide information which can be used to evaluate the methods and procedures that the BOC employs to communicate with CLECs regarding OSS system performance and system updates. The independent evaluator should assess the BOC's change management processes and should include, but not be limited to, a review of the BOC's ability to implement at least one significant software release. The following

¹ For purposes of this discussion, we use the phrase "change management process" as referring to the management of changes to OSS interfaces that affect CLECs' production or test environments. Such changes may include: 1) operations changes to existing functionality that impact the CLEC interface(s) upon a BOC's release date for new interface software; 2) technology changes that require CLECs to meet new technical requirements upon a BOC's software release date; 3) additional functionality changes that may be used at the CLEC's option, on or after a BOC's release date for new interface software; and 4) changes that may be mandated by regulatory bodies.

elements would be indicative, but not dispositive, of a satisfactory change management process and should be evaluated by the independent third-party:

- **CLEC Participation:** CLECs would have a role in the development of, and modifications to, the change management process.
- **Release Implementation:** Prior to issuing a new software release or upgrade, the BOC would provide a testing environment that mirrors the production environment in order for CLECs to test the documentation for the new release. The testing environment would be stable (i.e., no changes by the BOC), and would be maintained for an adequate time-period, at least 30 days, for the CLECs to test. To ensure CLECs are not forced to cut over to a new release prematurely, a BOC could adopt a "Go/No Go" vote process to decide whether to implement a new release. Pursuant to this process the new release is delayed if a majority, such as two-thirds, of eligible CLECs vote to delay the release. Similarly, a BOC could maintain a pre-existing version, or versions, of the interface (e.g., Electronic Data Interchange) when issuing a new release rather than switching directly from one version to the next.
- **Memorialization of Process:** The change management process would be clearly memorialized and set forth in one document that can be readily accessed by the CLECs. Any modifications to the change management process would be included with this document.
- **Dispute Resolution:** There would be a dispute resolution process for change management that is separate and apart from any process that is set forth in interconnection agreements. This would provide CLECs a forum specifically designated to resolve any change management disputes.

3. **xDSL Testing**

The third-party test would test significant volumes of xDSL orders (i.e., xDSL capable loops).

4. **Normal, High, and Stress Volume Testing**

- **Normal and High Volume Testing:** The third-party test would test projected normal and high volumes of pre-order and order transactions that flow-through the BOC's systems.² The mix of transactions would replicate expected CLEC

² An incumbent LEC's internal ordering system permits its retail service representatives to submit retail customer orders electronically, directly into the ordering system. This is known as "flow-through." Similarly, a competing carrier's orders "flow through" if they are transmitted electronically (i.e., with no manual intervention) through the gateway into the incumbent LEC's ordering system. Order flow-through applies solely to the OSS ordering function, not the OSS provisioning system. In other words, order flow-through measures only how the competing carrier's order is transmitted to the incumbent's back office ordering system, not how the incumbent ultimately completes that order. Electronically processed service

ordering patterns by including, for instance, error conditions and change orders, and by covering the process end-to-end (i.e., through the receipt of order confirmation notice or electronic error notice). "Normal" volumes would be based on the BOC's reasonable estimate, with input from CLECs, of daily order volumes. "High" volumes would be significantly greater than normal volumes and based on the BOC's reasonable estimate, with input from CLECs, of forecasted demand.

- **Capacity or Stress Testing:** The third-party stress test would assess scalability of the BOC's OSS systems by testing a mix of transactions similar to those in the normal and high volume testing. These volumes would be significantly greater than the high volume test and be sufficient to identify potential weak points in the systems.

5. Pseudo-CLEC

If no CLEC has constructed an interface with whatever OSS system the BOC is relying on to meet the nondiscriminatory obligations set forth in the 1996 Act, the third-party tester should build a pseudo-CLEC. The pseudo-CLEC should build an interface not only to test the quality of the BOC's documentation for such OSS systems but also to ensure that these systems are capable of submitting and receiving valid transactions. The pseudo-CLEC should build the interface(s) using the BOC's documentation and business rules to determine whether any CLEC can build an interface based upon these materials. Third-party testing can be conducted using orders from a combination of existing CLECs and a pseudo-CLEC.

6. Dissemination of Information

A third-party test of OSS should include a formal, predictable and public mechanism for the third-party tester to communicate to both the BOC and the CLEC community issues identified by the third-party tester that arise during the course of testing. Staff proposes the following options for reporting problems:

- Report issues as they arise; or
- Issue reports pursuant to a specified time-frame (i.e., weekly or bi-weekly); or
- Issue an interim report in the middle of the test and a final report at the end.

Combinations of these options could provide optimal balance between frequency and detail.

7. Functionality

- CLECs would be consulted in developing the test scenarios to reflect their market entry and growth and expansion scenarios in a particular region.

orders are more likely to be completed and less prone to human error than orders that require some degree of human intervention.

- Functionality testing would be conducted for pre-ordering, ordering, provisioning, maintenance and repair, and billing transactions. The transaction mix should replicate CLEC ordering patterns and include, for instance, orders that fall out for manual processing, orders that contain errors, and order changes and supplements. Functionality testing also would test these transactions end-to-end (i.e., orders should be actually provisioned), as applicable.

This letter is intended to provide a summary of staff views regarding key elements of a third-party test which could assist our determination that a BOC's OSS is operationally ready and capable of efficiently supporting ever-increasing volumes of transactions. It is not, however, intended to be an exhaustive list of the necessary elements for a successful third-party test. Moreover, it is possible that additional issues will be raised by interested parties in future section 271 dockets. I emphasize that any final determinations regarding whether a BOC is providing nondiscriminatory access to its OSS will be made by the Commission based on the record of the BOC's 271 application for a particular state. To this end, Bureau staff is committed to working with all parties to ensure that the section 271 application process is as orderly and predictable as possible.

For information purposes, a copy of this letter will be placed in CC Docket No. 98-121³ and CC Docket No. 98-56.⁴

Sincerely,



for Lawrence E. Strickling, Chief
Common Carrier Bureau

³ Application of BellSouth Corporation, BellSouth Telecommunications, Inc., and BellSouth Long Distance, Inc., for Provision of In-Region, InterLATA Services in Louisiana, CC Docket No. 98-121, Memorandum Opinion and Order, 13 FCC Red 20599 (1998).

⁴ Performance Measurements and Reporting Requirements for Operations Support Systems, Interconnection, and Operator Services and Directory Assistance, CC Docket No. 98-56, Notice of Proposed Rulemaking, 13 FCC Red 12817 (1998).